

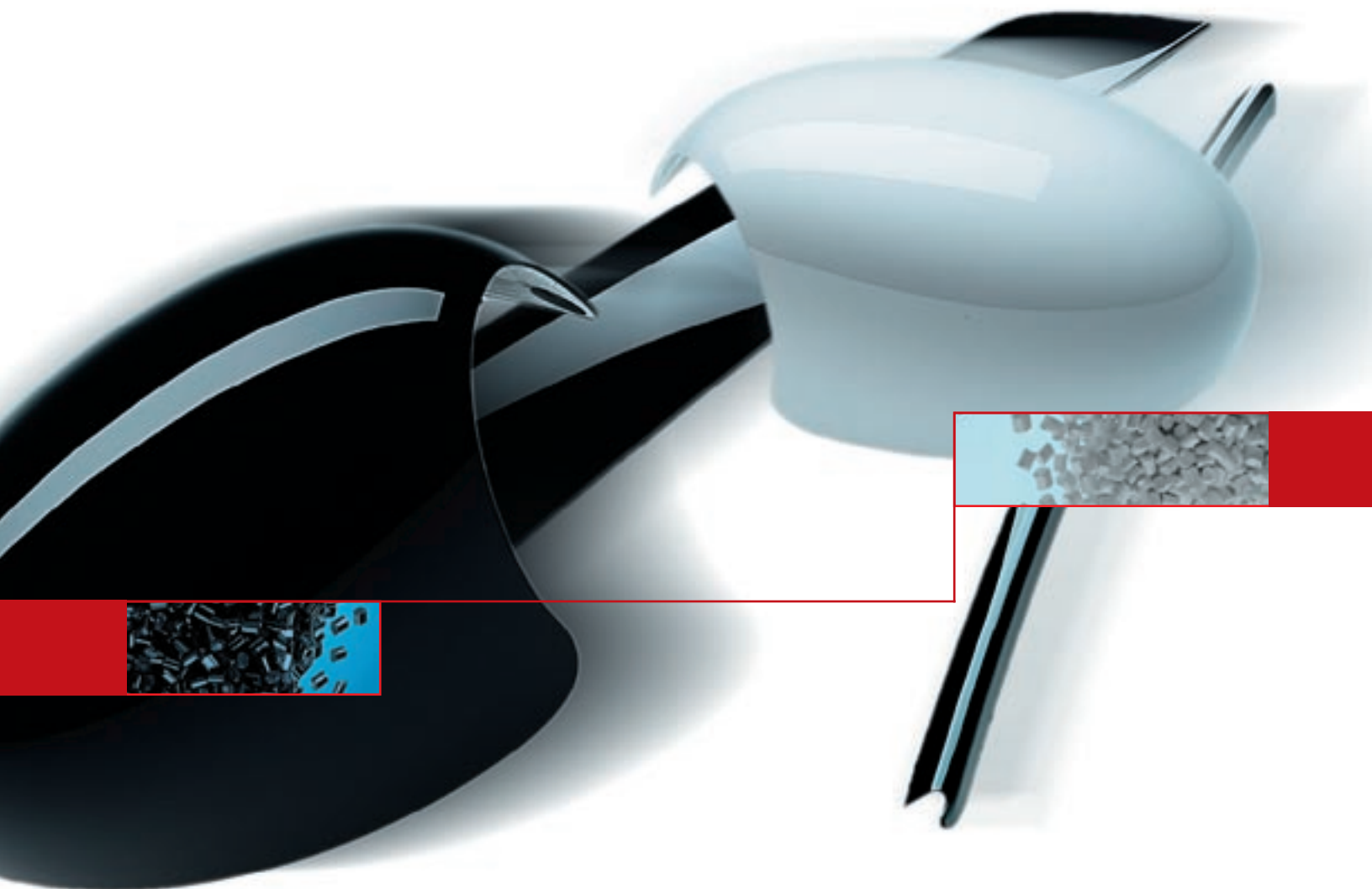
degussa.

creating essentials

ACRYLITE® and ACRYLITE PLUS® Acrylic Polymers



for Non-Transparent Automotive Applications



Setting the standard with ACRYLITE® and ACRYLITE PLUS® Acrylic Polymers

CYRO Industries and Degussa are bringing our experience and expertise together into a broad global portfolio for the automotive industry. As a result we are able to create new solutions that offer part design flexibility and lower total cost-of-use.

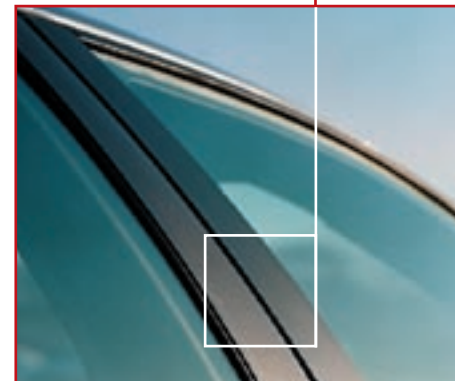
ACRYLITE polymers have long been the preferred materials for manufacturing highly weatherable exterior automotive components. Degussa has set the standard in the use of specialty acrylics for non-transparent automotive trim applications.

Together we are providing customer solutions for innovative exterior applications which are being adopted by leading automotive OEMs. Our drive for product excellence was acknowledged when Degussa, together with a leading automotive OEM and a state-of-the-art Tier One supplier, won the prestigious SPE Automotive Division Award. This award for an A-pillar cover, in the "Body Exterior" category, was given by the European section of the Society of Plastics Engineers. The award honors the outstanding properties of the injection-molded A-pillar cover, including its:

- ▶ extremely deep color
- ▶ weather resistance throughout the car's life cycle
- ▶ robust, high-gloss surface from which any minor scratches can be easily polished away

Economical processing was another decisive factor in the award because these colored, non-transparent parts do not require subsequent coating.

Furthermore, CYRO/Degussa has developed customer solutions for large body parts based on Paintless Film Molding (PFM) of co-extruded sheets for Class A high-gloss body side parts. These co-extruded sheets are then thermoformed and back molded or foam backed.



Bringing new customer solutions to you

ACRYLITE and ACRYLITE PLUS polymers offer outstanding features and benefits:

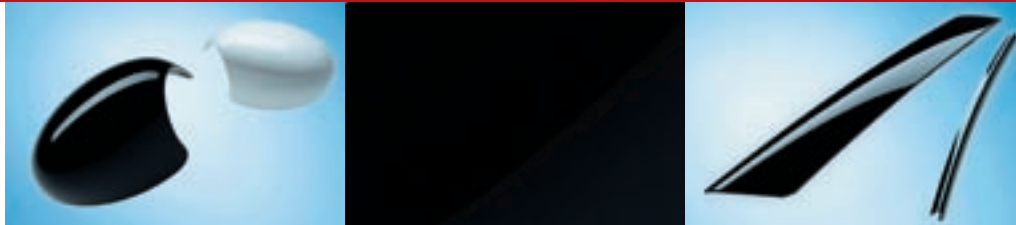
- ▶ Excellent weather resistance for lifetime durability
- ▶ Depth of color for outstanding appearance
- ▶ High-gloss surface (Class A) for lasting appeal
- ▶ Superior surface hardness delivers abrasion resistance
- ▶ High heat deflection temperature for structural stability
- ▶ High rigidity for good dimensional stability
- ▶ Resistance to gasoline prevents surface damage
- ▶ Good chemical resistance offers protection from environmental damage
- ▶ Polishable to remove small surface scratches
- ▶ 100% recyclable – environmentally friendly (meets ELV mandates)

For enhanced bottom-line results, including:

- ▶ Ease of processing for efficient molding and stable part production
- ▶ Cost-effectiveness (cost savings as compared with painted systems) for enhanced bottom line results
- ▶ Reliable technical assistance worldwide

ACRYLITE and ACRYLITE PLUS Polymers Perfect Design and Functionality

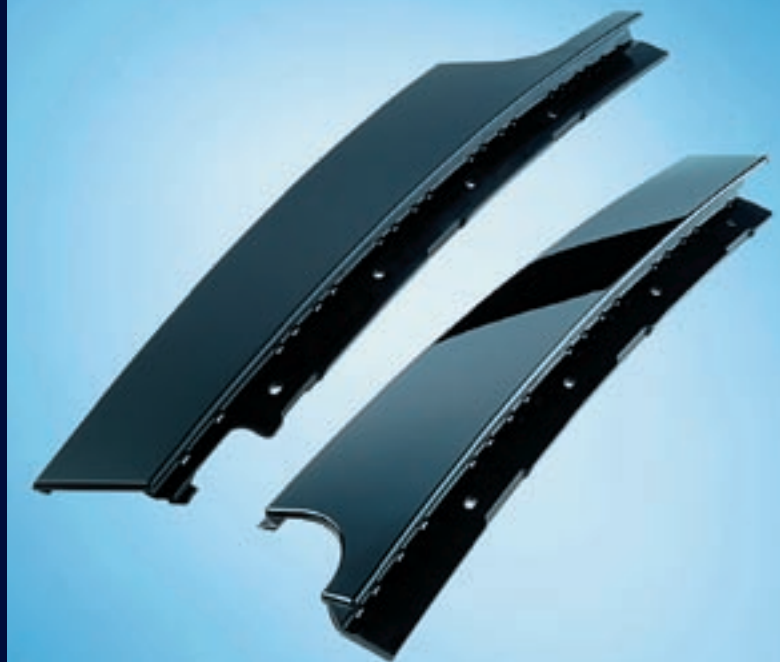
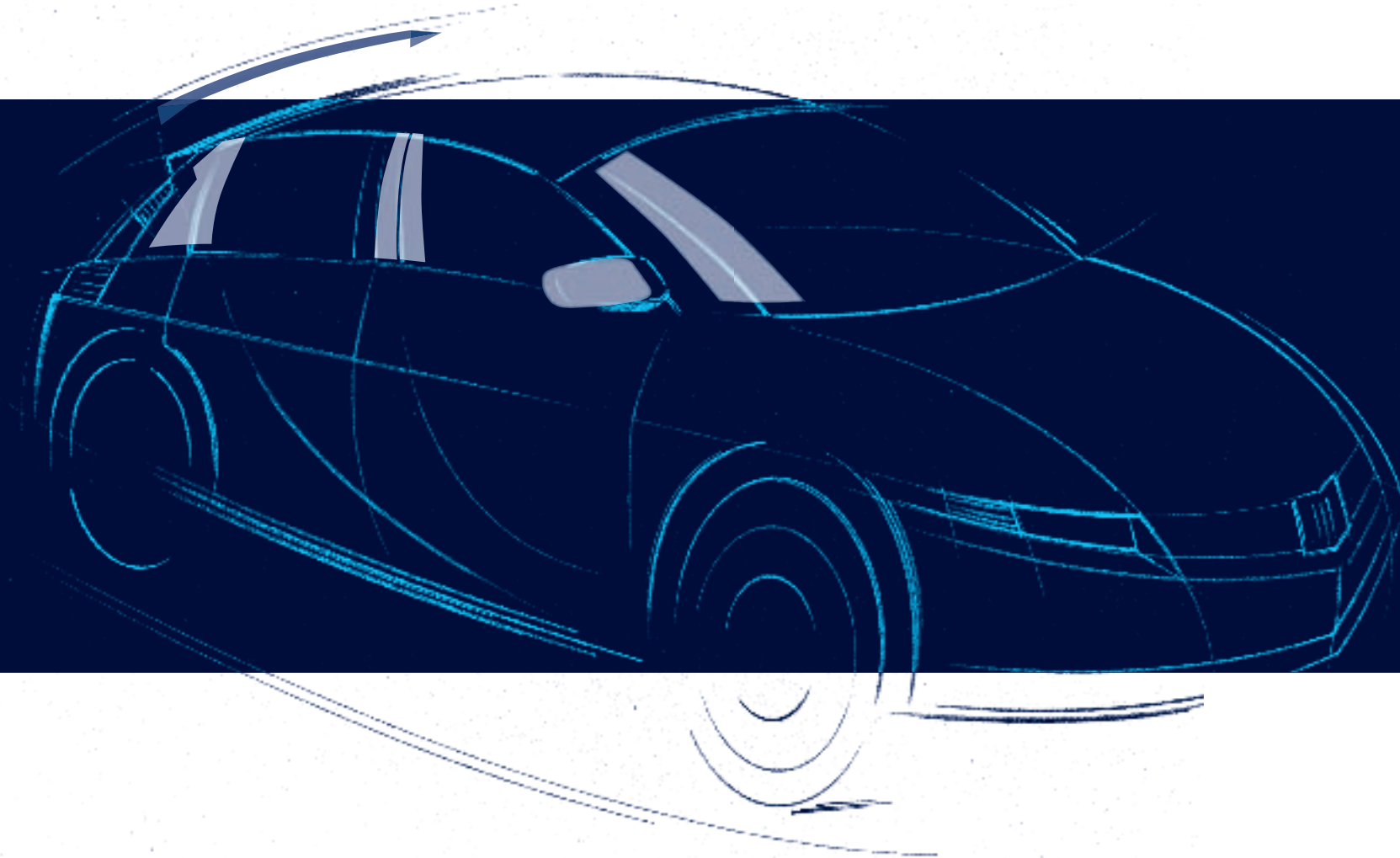
The applications for ACRYLITE and ACRYLITE PLUS acrylic polymers range from decorative appliqué and functional parts to mirror housings and roof elements.



Automotive trim parts made from ACRYLITE polymers offer high-gloss surface and extremely deep color.

ACRYLITE and ACRYLITE PLUS Polymers Color Development Competency

ACRYLITE and ACRYLITE PLUS polymer grades are available in a variety of colors. All colors can deliver a high gloss and high distinction of image. We understand the special design needs of the automotive industry, and we can offer you a spectrum of colorful solutions. We have the know-how to develop new colors, and we have the capability to deliver consistent colors. Our technical team is available to assist you with your color design needs.



Products at a Glance

ACRYLITE and ACRYLITE PLUS polymers are available in a variety of grades with a balance of properties designed to meet the full range of requirements for non-transparent automotive body parts. Product applicability is dependent on a number of conditions such as heat deflection, impact strength and flow. Suggested application and processing requirements are below.



Product Grades	Key Properties	Simple covers / panels (decorative function)	Pillar appliquéés and multi-layer parts	Functional panels, e.g. window channels	Mirror housings and mirror triangles	Rear and side spoilers	Roof modules (e.g. wind deflectors)
ACRYLITE PLUS NTA-1	High heat deflection temperature, impact-modified.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ACRYLITE PLUS NTA-211	High flow impact grade for thin wall moldings and long thin parts.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ACRYLITE PLUS NTA-3	High heat deflection temperature and impact strength on same level as standard ACRYLITE polymers, optimized for thermal/humidity cycling test.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ACRYLITE PLUS NTA-4	Very high heat deflection temperature combined with high impact strength.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ACRYLITE FT8	Balanced property profile.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ACRYLITE FT15	High heat deflection temperature and good flow.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



ACRYLITE and ACRYLITE PLUS are registered trademarks of CYRO Industries.
CYRO is a wholly-owned subsidiary of Degussa.
© 2005 CYRO Industries. All Rights Reserved.

Degussa's Methacrylates Business Unit is a worldwide supplier of PMMA Molding Compounds. These products are sold in the Americas under the ACRYLITE® and ACRYLITE PLUS® trademarks. They are sold under the PLEXIGLAS® and PLEXALLOY® trademarks everywhere outside of the Americas.

Important Notice:

The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein.

NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.

Nothing herein is to be taken as permission, inducement or recommendation to practice any patented invention without a license.

We reserve the right to make changes to this brochure and to technical data.

Contact

Europe

Degussa AG
Molding Compounds Business Line
Kirschenallee
64293 Darmstadt
Germany
Phone +49 (0) 6151-18 4711
Fax +49 (0) 6151-18 3177
Email plexiglas.polymers@degussa.com
www.plexiglas.de

Asia Pacific

Regional Office Asia Pacific:
Degussa (SEA) Pte. Ltd.
3 International Business Park
07-18, Nordic European Centre
SGP - Singapore 609 927
Phone +65-6890 6811
Fax +65-6890 6813
Email siegfried.bevern@degussa.com

Americas

CYRO Industries
379 Interpace Parkway
P.O. Box 677
Parsippany, NJ 07054-0677
USA
Phone 800-631-5384
Fax 973-541-8448
Email AcrylitePlusNTA@degussa.com
www.cyro.com
www.AcryliteNTA4auto.com